

1 the correct orientation associated with them for the first time, it will take a little training to be able to
2 associate the appropriate phoneme with the identified symbol using attentive vision and the left side of
3 their brains before they will be able to read at their peers' level. This process however is much easier than
4 the approach they have been using which is to use pre-attentive vision and their right side of their brains
5 and transferring this information to the left side of the brains to be used with speech, spelling and
6 language functions.

7 While the preferred embodiments have been shown and described, it will be understood that
8 there is no intent to limit the invention by such disclosure, but rather, is intended to cover all
9 modifications and alternate constructions falling within the spirit and scope of the invention as defined
10 in the appended claims.

11 **CLAIMS**

12 1. A method for training or testing vision, comprising the following steps:
13 creating a three-dimensional environment including at least two objects of shape, including a first
14 object and a second object, situated before a background;
15 positioning the first object and the second object to produce either movement cues, color cues
16 or depth cues; and
17 viewing the three dimensional environment and studying the response of an individual to viewing
18 the three dimensional environment.

19 2. The method of claim 1 wherein the space between the first object and the second object is
20 beyond the horizontal angular extent an individual is able to foveate using attentive vision;
21 3. The method according to claim 2, wherein the horizontal angular extent is 2 degrees of the entire
22 width field viewed by the individual.

- 1 4. The method according to claim 2, wherein the first object and the second object are positioned
2 to produce depth cues by varying the depth range difference between the first object and the second
3 object.
- 4 5. The method according to claim 2, further including the step of using sound, touch or smell.
- 5 6. The method according to claim 4, wherein the depth cues are provided within a range of a pre-
6 attentive depth perception limit.
- 7 7. The method according to claim 6, wherein the pre-attentive depth perception limit is
8 approximately 3 arcmin.
- 9 8. The method according to claim 4, further including the step of varying the textural contrast
10 between the background and the first and second objects.
- 11 9. The method according to claim 8, wherein the step of varying includes varying textural spatial
12 frequency
- 13 10. The method according to claim 8, wherein the step of varying includes varying color
14 composition.
- 15 11. The method according to claim 8, wherein the step of varying includes varying edge fidelity.
- 16 12. The method according to claim 8, wherein the step of varying includes varying noise.
- 17 13. The method according to claim 2, further including the step of varying the textural contrast
18 between the background and the first and second objects.
- 19 14. The method according to claim 2, wherein the background includes variations.
- 20 15. The method according to claim 1, wherein the method is applied in the treatment of dyslexia.
- 21 16. The method according to claim 15, wherein the step of studying includes applying the preceding
22 steps to teach individuals to utilize pre-attentive vision in reading.

1 17. The method according to claim 15, wherein applying includes calibrating attentive vision for
2 orientation determination by transitioning the correctly determined orientation of the pre-attentive vision
3 to the attentive vision of the foveal region.

4 18. The method according to claim 15, wherein the first object and the second object are similarly
5 shaped, but oriented differently.

6 19. The method according to claim 15, wherein depth cues and color cues are applied.

7